



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/083,332	02/25/2002	Robert A. Dixon		4092

8698 .7590 06/29/2005

STANDLEY LAW GROUP LLP
495 METRO PLACE SOUTH
SUITE 210
DUBLIN, OH 43017

EXAMINER

REIP, DAVID OWEN

ART UNIT	PAPER NUMBER
----------	--------------

3731

DATE MAILED: 06/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/083,332	Applicant(s) DIXON ET AL.	
	Examiner David O. Reip	Art Unit 3731	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 May 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3,4,6,12,14 and 29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3,4,6,12,14 and 29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3, 4, 12, and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by Bono (U.S. Pat. No. 5,954,722). Fig. 5 of Bono shows a bone stabilizing system having all the limitations as recited in the above listed claims, including: bone screws 18 with a head portion (at 50), a tapered plate shank portion (at 62), a threaded portion 56 with a self-tapping tip 49, and a tapered bone shank portion (at 52); and a plate 20 with tapered holes (i.e. the tapered hole 38 through the bushing insert 16 being considered as defining the “plate holes” as claimed). Note that the tapered shape of the upper portion of each screw that together defines the head portion, the plate shank portion, and the bone shank portion, is seen to clearly make an “interference fit” (as broadly recited) within the plate hole and the bone.

Claim 29 is rejected under 35 U.S.C. 102(b) as being anticipated by Foley et al (U.S. Pat. No. 5,681,311). Figs. 1-12 of Foley et al show a bone stabilizing system having all the limitations as recited in claim 29, including: a plurality of bone screws 14 with a head portion (at 42, see Fig. 7), a threaded shank portion 38, and an unthreaded shank portion (at 40 and 41, see Fig. 7) therebetween; a plate 12 with tapered holes 24,

Art Unit: 3731

each hole being sized and configured for making a locking fit with a first portion 41 of the unthreaded shank portion of the bone screw; and wherein a second portion 40 of the unthreaded shank portion passes through the plate hole and extends into the bone segment when the threaded shank portion is engaged into the bone segment (see the configuration as shown in Fig. 12 wherein, with the bottom surface of the plate 12 mounted flush with the surface of a bone, an unthreaded portion of the screw shank clearly extends below the bottom surface of the plate and into the bone).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein

Art Unit: 3731

were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bono in view of Trieu et al (U.S. Pat No. 6,605,090). As previously discussed, Bono shows a system that is basically the same as that recited in claim 6. However, Bono does not disclose the use of adhesive material. Cols. 9 and 10 of Trieu et al teach the use of various types of adhesives for use with a bone plating system. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include the use of an appropriate adhesive with the Bono plating system to enhance the overall stability of the system and to help further prevent screw backout.

The courts have concluded that there is no requirement that a motivation to make the modification be expressly articulated. The test for combining references is what the combination of disclosures taken as a whole would suggest to one of ordinary skill in the art. In re McLaughlin, 170 USPQ 209 (CCPA 1971). Also, references are evaluated by what they suggest to one versed in the art, rather than by their specific disclosures. In re Bozek, 163 USPQ 545 (CCPA 1969).

Conclusion

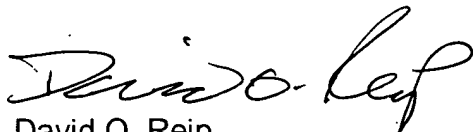
The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Engelhardt et al is cited as a prior art teaching of a screw/implant system having a "locking taper" (see col. 4, lines 12-26). Wagner et al is cited as a prior art teaching of a plating system that appears to provide, in the embodiment as shown in Fig. 9, a screw with a tapered portion that both makes and "interference fit" with the plate and extends below the bottom surface of the plate. Theken et al is cited as a prior art teaching of a bone plating system having a screw with a tapered portion that is specifically designed to make a locking, interference fit with correspondingly tapered holes in the plate. Further, it would appear that the tapered portion 110 of screw 100 (see Fig. 11), when mounted within tapered hole 64 in plate 22 (see Fig. 18), would extend below the bottom surface of the plate and into the bone.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David O. Reip whose telephone number is 571-272-4702. The examiner can normally be reached on 7 A.M.- 4 P.M. Mon-Thu and every other Fri..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anhtuan Nguyen can be reached on 571-272-4963. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 3731

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read "David O. Reip", is positioned above the printed name.

David O. Reip
Primary Examiner
AU 3731